

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A spatial light modulator for use in hologram recording, in which a plurality of light modulation elements are arranged in one plane to modulate a light beam incident thereon, wherein:

said plurality of light modulation elements are configured to perform light modulation in accordance with two-dimensional data corresponding to a recording data signal, and

said plurality of light modulation elements are arranged such that there are at least two Fourier frequency components corresponding to distances of the light modulation elements in an arbitrary direction in said one plane.

2. (currently amended): A spatial light modulator for use in hologram recording, in which a plurality of light modulation elements are arranged in a light modulation region of a circular shape to modulate a light beam incident thereon, wherein:

said plurality of light modulation elements are configured to perform light modulation in accordance with two-dimensional data corresponding to a recording data signal, and

said plurality of light modulation elements are arranged such that there are at least two Fourier frequency components corresponding to distances of the light modulation elements in an arbitrary direction in said light modulation region, and sizes of the light modulation elements increases along an outer peripheral direction of said light modulation region.

3. (previously presented): The spatial light modulator according to claim 2, wherein said plurality of light modulation elements have areas such that the ratios of light powers incident on the respective light modulation elements fall within a predetermined range.

4. (currently amended): A spatial light modulator for use in hologram recording and having a light modulation region of a circular shape to modulate a light beam incident thereon, comprising:

a plurality of light modulation elements arranged in areas which are obtained by radially and concentrically dividing said light modulation region, said plurality of light modulation elements being configured to perform light modulation in accordance with two-dimensional data corresponding to a recording data signal.

wherein said plurality of light modulation elements are positioned such that there are at least two Fourier frequency components corresponding to distances of the light modulation elements in a radial direction of said light modulation region.

5. (canceled).

6. (previously presented): The spatial light modulator according to claim 4, wherein said plurality of light modulation elements have areas such that the ratios of light powers incident on the respective light modulation elements fall within a predetermined range.

7. (new): The spatial light modulator according to claim 1, wherein said plurality of light modulation elements perform light intensity modulation.

8. (new): The spatial light modulator according to claim 2, wherein said plurality of light modulation elements perform light intensity modulation.

9. (new): The spatial light modulator according to claim , wherein said plurality of light modulation elements perform light intensity modulation.